



THE MALAWI NATIONAL EXAMINATIONS BOARD

2010 MALAWI SCHOOL CERTIFICATE OF EDUCATION EXAMINATION

GEOGRAPHY

Subject Number: M073/I

Time Allowed: 2 h 30 mins
2:00 – 4:30 pm

Thursday, 5 August

PAPER I

(100 marks)

MAP READING AND PHYSICAL GEOGRAPHY

Instructions

1. This paper contains 6 pages. Please check.
2. There are five questions in this paper.
3. Answer **Question one** and **three** others. The maximum number of marks for each answer is indicated against each question.
4. **All written** maps and diagrams should be neatly fastened and handed in with your Answer Book.
5. Write your **Examination Number** on top of each page of your Answer Book.

1. Study the 1:50,000 map extracts of Lake Kazuni area and answer the the questions that follow.
- a. (i) Find the **six figure** grid reference for the trigonometrical station **229/NYS**. (1 mark)
- (ii) What geographical feature is found at grid reference **774639**? (1 mark)
- b. (i) What is the general direction of flow of Chesamu river south of northing **68**? (2 marks)
- (ii) Measure the length of **S 49** road on the map. Give your answer to the nearest kilometre. (3 marks)
- c. (i) Why are there no settlements in the north western corner of the map? Give any **two** reasons. (4 marks)
- (ii) Calculate the area of Khuyu Estate Limited. Give your answer to the nearest square kilometre. (6 marks)
- d. (i) What is the bearing of Kazuni School (**square 7266**) from Elunyen School (**square 7759**)? (2 marks)
- (ii) Give the altitude of Vyeyo hill (**7157**). (2 marks)
- (iii) What geographical term is given to the highland on the south eastern corner of the map extending between northing **57** and northing **60**? (2 marks)
- (iv) State **three** drainage patterns found on the map east of easting **75**. (3 marks)
- e. Draw a cross section along northing **68** between easting **71 (710680)** and easting **76 (760680)**. On the cross section indicate Chesamu river and **S 49** road. (Take 1 cm to represent 50 ft for vertical scale) (8 marks)

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2. a. (i) Draw the internal structure of the earth. (2 marks)
- (ii) On the internal structure of the earth in 2. a.(i), label the core, mantle and the crust. (3 marks)
- (iii) What do you call the boundary between the lithosphere and the mantle? (1 mark)
- b. Define "tectonic activity". (2 marks)
- c. **Figure 1** shows a plate boundary. Use it to answer questions that follow.

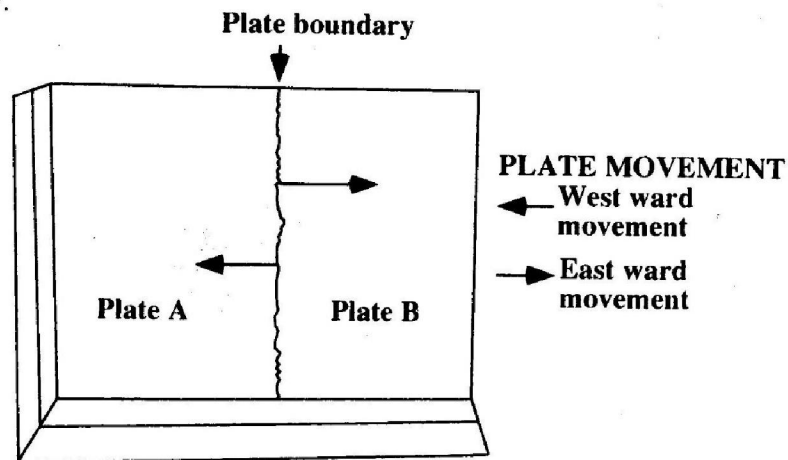


Figure 1

- (i) Identify this type of plate boundary. (1 mark)
- (ii) Name any **one** physical feature which is likely to be found along this plate boundary. (1 mark)
- (iii) Describe the **two** other types of plate boundaries. (4 marks)
- d. (i) Describe **two** characteristics of fold mountains. (4 marks)
- (ii) Why are sedimentary rocks stratified? (2 marks)
- (iii) What type of a rock is granite? (2 marks)

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3. a. State any **two** forms of precipitation. **(2 marks)**
- b. **Figure 2** shows a drainage pattern. Use it to answer questions that follow.

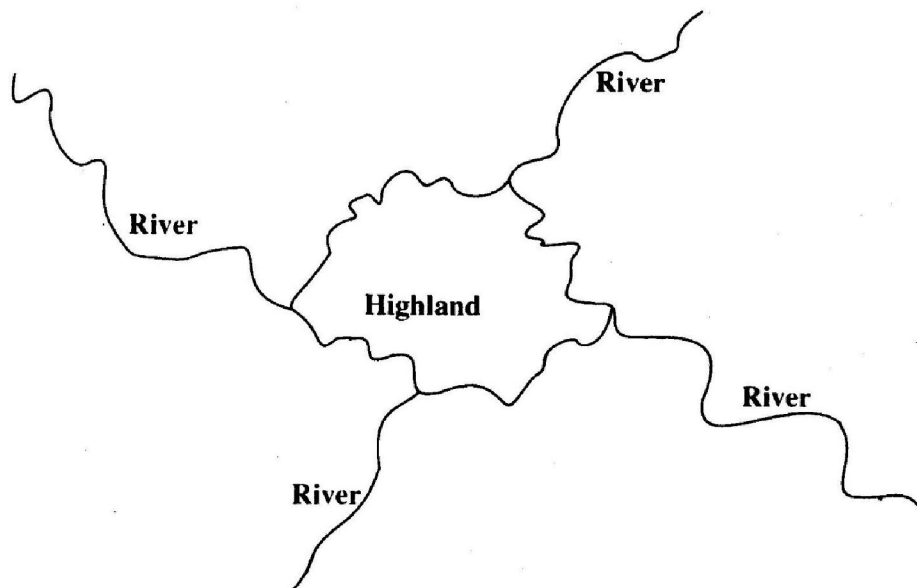


Figure 2

- (i) Identify this type of drainage pattern. **(2 marks)**
- (ii) Describe any **two** characteristics of this type of drainage pattern in 3.b.(i). **(4 marks)**
- (iii) On which land form are we likely to find this type of drainage pattern? **(1 mark)**
- c. (i) What do you call the movement of groundwater through permeable rocks? **(1 mark)**
- (ii) Describe the **three** conditions which are necessary for rain to be formed. **(6 marks)**
- (iii) Describe any **two** factors which encourage surface run off. **(6 marks)**

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4. a. (i) Define the term "Dew-point temperature". (2 marks)
- (ii) State any **two** groups of clouds based on height. (2 marks)
- (iii) To which groups do the following clouds belong?
 (1) cirrus (1 mark)
 (2) stratus (1 mark)
- b. What type of rain is associated with anvil shaped clouds? (2 marks)
- c. With the aid of a well labelled diagram, explain the formation of convectional rain. (8 marks)
- d. Describe **three** similarities amongst all the three types of rain. (6 marks)

5. **Figure 3** is a graph showing rainfall and temperature patterns of a certain climate. Use it to answer questions that follow.

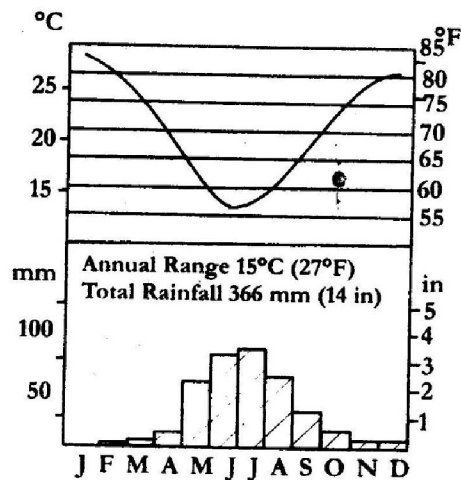


Figure 3

- a. (i) Identify the type of climate represented in the graph. (2 marks)
- (ii) Explain the relationship between the rainfall and temperature patterns in the graph. (2 marks)
- (iii) What unique characteristics of the climatic type is shown by the relationship in a.(ii). above? (2 marks)
- (iv) In which hemisphere is the place represented in the graph located? Give a reason for your answer. (2 marks)

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- b. (i) State any **one** type of delta. (1 mark)
- (ii) Explain any **two** necessary conditions for the formation of a delta. (4 marks)
- (iii) Describe any **two** uses of delta. (4 marks)
- c. (i) What geographical term is given to an area that is affected by excess water from a river or lake during rainy season? (2 marks)
- (ii) Why is the area mentioned in c.(i) very fertile? (3 marks)

END OF QUESTION PAPER

NB: This paper contains 6 pages.